

FORM PTO-1390  
(REV. 7-2004)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTORNEY'S DOCKET NUMBER  
9516-149-999

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

U.S. APPLICATION NO. (if known, see 37CFR 1.5)  
To be assigned**10/511355**

INTERNATIONAL APPLICATION NO. PCT/US03/11190	INTERNATIONAL FILING DATE April 11, 2003	PRIORITY DATES CLAIMED 4/12/2002; 5/30/2002; 12/31/2002
TITLE OF INVENTION MODULATION OF STEM AND PROGENITOR CELL DIFFERENTIATION, ASSAYS, AND USES THEREOF		
APPLICANT(S) FOR DO/EO/US HARIRI, Robert J.; STIRLING, David I.; CHAN, Kyle W.H.; MOUTOUH-DE PARSEVAL, Laure A.		

Applicant herewith submits to the United States Designated/ Elected Office (DO/EO/US) the following items and other information:

1.  This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2.  This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3.  This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5); (6), (9) and (21) indicated below.
4.  The U.S. has been elected (Article 31).
5.  A copy of the International Application as filed (35 U.S.C. 371(c)(2)) (filed in English).
  - a.  is attached hereto (required only if not communicated by the International Bureau).
  - b.  has been communicated by the International Bureau.
  - c.  is not required, as the application was filed in the United States Receiving Office (RO/US)
6.  An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a.  is attached hereto.
  - b.  has been previously submitted under 35 U.S.C. 154(d)(4).
7.  Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a.  are attached hereto (required only if not communicated by the International Bureau).
  - b.  have been communicated by the International Bureau.
  - c.  have not been made; however, the time limit for making such amendments has NOT expired.
  - d.  have not been made and will not be made.
8.  An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9.  An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)) (unexecuted).
10.  An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11. to 20. below concern document(s) or information included:**

11.  An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12.  An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13.  A preliminary amendment.
14.  An Application Data Sheet under 37 CFR 1.76.
15.  A substitute amendment.
16.  A power of attorney and/or change of address letter.
17.  A computer-readable form of the sequence listing in accordance with PCT Rule 13ter 2 and 37 CFR 1.821- 1.825.
18.  A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19.  A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
20.  Other items or information:

US APPLICATION NO. (If known, see 37 CFR 1.5) <b>107511355</b>	INTERNATIONAL APPLICATION NO. PCT/US03/11190	ATTORNEY'S DOCKET NUMBER 9516-149-999																
21. The following fees are submitted:		<b>CALCULATIONS PTO USE ONLY</b>																
<b>BASIC NATIONAL FEE (37 CFR 1.492 (A) (1) - (5)):</b>																		
<input type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO.....		\$1,110.00																
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO.....		\$950.00																
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO.....		\$790.00																
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4).....		\$750.00																
<input checked="" type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4).....		\$100.00																
<b>ENTER APPROPRIATE BASIC FEE AMOUNT =</b>		\$ 750.00																
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).		\$ 130.00																
<table border="1"> <thead> <tr> <th>CLAIMS</th> <th>NUMBER FILED</th> <th>NUMBER EXTRA</th> <th>RATE X</th> </tr> </thead> <tbody> <tr> <td>Total Claims</td> <td>101 - 20</td> <td></td> <td>\$18.00</td> </tr> <tr> <td>Independent Claims</td> <td>13 - 3</td> <td></td> <td>\$88.00</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> MULTIPLE DEPENDENT CLAIM(S) (if applicable)</td> <td>+ 300.00</td> <td>-</td> </tr> </tbody> </table>		CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE X	Total Claims	101 - 20		\$18.00	Independent Claims	13 - 3		\$88.00	<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM(S) (if applicable)		+ 300.00	-	1458.00
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE X															
Total Claims	101 - 20		\$18.00															
Independent Claims	13 - 3		\$88.00															
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM(S) (if applicable)		+ 300.00	-															
<b>TOTAL OF ABOVE CALCULATIONS=</b>		\$ 3218.00																
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by ½.		- \$ N/A																
<b>SUBTOTAL =</b>		\$ 3218.00																
Processing fee of \$130.00 for furnishing the English Translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).		0.00																
<b>TOTAL NATIONAL FEE</b>		\$ 3218.00																
Fee for recording the enclosed assignment (37 CFR 1.21 (h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). x \$40.00 per property		\$ 0.00																
<b>TOTAL FEES ENCLOSED</b>		\$ 3218.00																
		<b>Amount to be refunded:</b>																
		<b>charged:</b>																
a. <input type="checkbox"/> A check in the amount of \$0.00 to cover the above fees is enclosed. b. <input checked="" type="checkbox"/> Please charge Deposit Account No. 50-3013 to cover the above fees. A copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-3013. A copy of this sheet is enclosed.																		
Note: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the International Application to pending status.																		
22. <input type="checkbox"/> Other instructions																		
23. <input checked="" type="checkbox"/> All correspondence for this application should be mailed to JONES DAY 20583 <i>By: Lawrence S. Graham Reg. No. 49,020</i>																		
24. <input checked="" type="checkbox"/> All telephone inquiries should be made to: Lawrence S. Graham, Reg. No. 49,020 858-314-1171 Anthony M. Insogna, Reg. No. 35,203 858-314-1200.																		
Anthony M. Insogna NAME	SIGNATURE <i>Anthony M. Insogna</i>	35,203 REG. NO.																
		October 12, 2004 DATE																